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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/552,623

10/07/2005

Jack Burger

8907/84445

9138

42798 7590 12/18/2009  
FITCH, EVEN, TABIN & FLANNERY  
P. O. BOX 18415  
WASHINGTON, DC 20036

EXAMINER

DEES, NIKKI H

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

12/18/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/552,623	<b>Applicant(s)</b> BURGER ET AL.	
	<b>Examiner</b> Nikki H. Dees	<b>Art Unit</b> 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 15 and 22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 16-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. The Amendment filed on October 14, 2009, has been entered. Claims 1-22 remain pending in the Application. Claims 15 and 22 remain withdrawn from consideration. The previous objection to the abstract has been withdrawn in view of the amendment to the Abstract. The previous 112 rejections of claims 4 and 5 have been withdrawn in view of Applicant's amendment to claim 4.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 16 and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claim 16 is rejected as being dependent on a withdrawn claim. For purposes of examination, claim 16 will be interpreted as being dependent on claim 1. It will be interpreted to claim a product comprising the oxygen stable composition of claim 1.

5. Claim 21 claims a product that is "essentially sugar-free." It is unclear how much sugar the product may, or may not, contain in order to be considered "essentially sugar-free." Claim 21 is dependent on claim 17 to a "sugar confectionary article." It is unclear how this confectionary article is to be essentially sugar free. As the product of claim 21

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comprises the composition of the instant invention in combination with foodstuffs, and the instant invention comprises mono-, di-, and trisaccharides, a product that is "essentially sugar-free" will be considered to be a product that does contains little or no sucrose in addition to the composition of the instant invention.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-13 and 16-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burger et al. (WO 02/47492) in view of Menzi et al. (US 6,056,949).

8. Regarding claims 1 and 2, Burger et al. teach a composition comprising inert core particles coated with at least one active compound encapsulated in a carbohydrate matrix, where the matrix comprises 45-70 wt % high molecular weight film form carbohydrates, 5-30 wt % mono-, di-, and trisaccharides, and 10-30 wt % maltodextrin (claim 1).

9. Regarding claim 3, the film forming carbohydrate may be selected from the group consisting of gum arabic, gum acacia, lipophillically modified starches and mixtures thereof (claim 3).

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10. Regarding claims 4 and 5, the composition of Burger et al. may comprise xylitol in an amount ranging from 5 to 30 wt % of the total composition and the xylitol may be 100% of the sweetener (p. 4 lines 30-33).

11. Regarding claims 6 and 7, active compounds encapsulated in the invention of Burger et al. include flavourants, fragrances, pharmaceuticals and wash-active compounds (claim 9). Many active flavor and fragrance compounds are taught for use in the invention, specifically including linalool (pp. 5-6, lines 24-33, lines 1-17).

12. Regarding claim 8, the active compound is present in the invention of Burger et al. at 1-40 wt % (claim 11).

13. Regarding claim 9, the core particles of the invention of Burger et al. include tea fannings, tea dust, tobacco particles, sugar crystals, and plant seeds (claim 12).

14. Regarding claims 11 and 12, the composition of Burger et al. has core particles in the size ranging from 0.1-3 mm (claim 13). The ratio of core particles to coating ranges from 5:1 to 1:5 (claim 14).

15. Regarding claims 16-21, Burger et al. teach the encapsulation of flavors and fragrances and claim products comprising their composition (claim 18).

16. Burger et al. are silent as to the particles being further coated with a modified cellulose having reversible gel formation properties upon temperature increase and the weight ratio of this coating (claims 1 and 13). They are also silent as to the particles being coated with an additional lipid coating (claim 10).

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17. Menzi et al. teach the coating of flavoring particles with substances known to be used to provide a protective skin or film, including modified cellulose and fat (col. 2 lines 40-48).

18. Regarding claim 11, Example 3 teaches a molten vegetable fat at 50-60°C, indicating the melting point is at least 30°C and the layer is at least 50 wt% lipids.

19. As active-containing particles are known in the prior art, as is the additional coating of fats and film forming modified cellulose, one of ordinary skill in the art at the time the invention was made wishing to improve the stability of the particles of the invention of Burger et al. would have found it obvious to provide the particles with an additional coating layer or layers in order to protect the particles. This additional coating layer would not have required undue experimentation, and there would have been a reasonable expectation that the additional coating layer would have provided additional protection against oxidation. One of ordinary skill would further have been able to modify the thickness of the modified cellulose layer as desired in order to provide a suitable protective layer without diminishing the activity of the flavorant or active being encapsulated.

20. Regarding claims 16-20, it would have been obvious to include the flavor particles of Burger et al. in any foodstuff requiring the desired flavor. Foodstuff where flavors are known to be added including confectionary articles, chewing gums, dry soups, sausages, snacks, and noodles. Additionally, the determination of the amount of flavor particles to be added is well within the abilities of one of ordinary skill without undue experimentation.

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21. Regarding claim 21, the substitution of non-carbohydrate sweeteners for sucrose and other carbohydrate sweeteners is common throughout the food industry. The replacement of carbohydrate sweeteners with non-carbohydrate sweeteners to provide “sweet” products with reduced caloric content would have been obvious to one of ordinary skill in the art.

22. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Burger et al. (WO 02/47492) in view of Menzi et al. (US 6,056,949) as applied to claim 1 above and in further view of Yolles (3,857,964).

23. The combination of Burger et al. and Menzi et al. teaches an oxygen stable composition having a modified cellulose coating as required by claim 1.

24. The combination is silent as to the type of modified cellulose to be used for the coating.

25. Yolles teaches modified cellulose coatings including hydroxypropyl cellulose and methyl cellulose to be used as an outer coating on flavor particles (col. 4 lines 4-9).

26. It would have been obvious to one of ordinary skill in the art the time the invention was made to have selected known, commercially available modified cellulose coatings, as taught by Yolles, to use for coating particles where a modified cellulose coating was desired. The use of modified cellulose coatings, including hydroxypropyl cellulose and methyl cellulose, as outer coatings was known in the art at the time the invention was made, and undue experimentation would not have been required to

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employ these particular types of coatings in the combination of Burger et al. and Menzi et al.

### ***Double Patenting***

27. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

28. Claims 1-3, 6-9, 11, and 12 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-4 and 8-13 of U.S. Patent No. 7,018,651 in view of Menzi et al. (US 6,056,949). USPN 7,018,651 teaches an oxygen stable composition comprising inert core particles coated with active compounds encapsulated in a carbohydrate matrix. Limitations claimed for the composition of the carbohydrate matrix, inert core particles, active ingredients significantly overlap with those of the instant application. USPN 7,018,651 is silent as to an additional coating with a modified cellulose having reversible gel forming properties.



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Menzi et al. teach the coating of granulated particles with modified cellulose in order to provide the granules with an additional protective layer or protective skin (col. 2 lines 40-44). One of ordinary skill wishing to provide the granules of USPN 7,018,651 with additional protection from oxidation would have found it obvious to coat the particles with an outer layer of modified cellulose as modified cellulose was known in the art as to be used as an outer protective layer, as taught by Menzi et al.

### ***Response to Arguments***

29. Applicant's arguments filed October 14, 2009, have been fully considered but they are not persuasive.

30. Regarding the restriction requirement, the restriction is maintained for the reasons presented in the restriction requirement mailed December 17, 2008.

31. The 112<sup>nd</sup> paragraph rejections of claims 16 and 21 are maintained as Applicant has not addressed the rejections, other than to state they do not see the basis.

32. Regarding the nonstatutory obviousness-type double patenting rejection, Applicant argues that the claims of patent 7,018,651 are not the same as the instant claims, nor do the claims suggest the instant invention (Remarks, p. 9).

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33. In response, it is noted that "A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s)." The examiner has not put forth that the claims of the conflicting patent are the same as the instant claims. As was noted in the rejection, limitations claimed in the '651 patent for the composition of the carbohydrate matrix, inert core particles, active ingredients significantly overlap with those of the instant claims. The additional coating as required by the instant claims is considered obvious as modified cellulose coatings are known in the art, as is evidenced by Menzi, to provide particles with an additional layer of protection against degradation. The nonstatutory obviousness-type double patenting rejection is maintained.

34. Regarding the 103 rejection of claims 1-13 and 16-21, Applicants argue that simply showing the elements of the claims in the prior art is not sufficient to support an obviousness rejection (Remarks, p. 10).

35. The rejection does more than show the elements of the claims in the prior art. The rejection provides a motivation for one of ordinary skill to combine the elements of the prior art, in order to provide the predictable result of a coated particle, as is required by the instant claims. From the rejection *supra*, "active-containing particles are known in the prior art, as is the additional coating of fats and film forming modified cellulose, one of ordinary skill in the art at the time the invention was made wishing to improve the

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stability of the particles of the invention of Burger et al. would have found it obvious to provide the particles with an additional coating layer or layers in order to protect the particles. This additional coating layer would not have required undue experimentation, and there would have been a reasonable expectation that the additional coating layer would have provided additional protection against oxidation. One of ordinary skill would further have been able to modify the thickness of the modified cellulose layer as desired in order to provide a suitable protective layer without diminishing the activity of the flavorant or active being encapsulated.”

36. Clearly, the prior art provides motivation to protect particles with additional coating materials, as is required by the instant claims. As all the elements of the instant claims are known in the prior art, and the prior art provides motivation for the combination, the rejection is maintained.

37. Regarding the 103 rejection of claim 14, Applicants again argue that simply showing the elements of the claims in the prior art is not sufficient to support an obviousness rejection (Remarks, p. 11).

38. The prior art of Burger et al., Menzi et al. and Yolles are all in the same field of endeavor (i.e. particles to be added to foodstuffs). Menzi et al. specifically teaches modified cellulose coatings to be applied to particles, but is silent as to the particular type of modified cellulose.

39. Yolles teaches modified cellulose coatings including hydroxypropyl cellulose and methyl cellulose to be used as an outer coating on flavor particles (col. 4 lines 4-9).

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40. As all of the claimed elements were known in the prior art to be used in the same field of endeavor, the selection of a particular type of modified cellulose where modified cellulose is taught is considered routine for one of ordinary skill. The use of modified cellulose coatings, including hydroxypropyl cellulose and methyl cellulose, as outer coatings was known in the art at the time the invention was made, and undue experimentation would not have been required to employ these particular types of coatings in the combination of Burger et al. and Menzi et al.

### ***Conclusion***

41. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nikki H. Dees whose telephone number is (571) 270-3435. The examiner can normally be reached on Monday-Friday 7:30-4:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on (571) 272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/N. H. D./  
/Lien T Tran/  
Primary Examiner, Art Unit 1794

Nikki H. Dees  
Examiner  
Art Unit 1794